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SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT, PERU-ECUADOR BORDER, 6 JUNE 1975

K. J. Hill, et al

Teledyne Geotech

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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Peru-Ecuador Border, 6 June 1975

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January 1976

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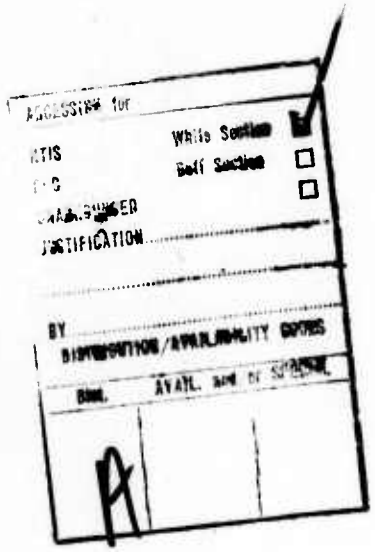

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SDCS EVENT REPORT NO. 64

Peru-Ecuador Border, 6 June 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
NORSAR	14:34:05.9	14:21:04	03 S	077 W	5.2	N/A
LASA	14:30:38.7	14:21:54	01.9S	080.1W	5.1	N/A
PDE		14:21:09.5	03.8S	076.8W	5.1	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

14:20:54.2	03.9S	076.9W	5.1	3.7

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. Horizontal SP channels at all SDCS stations were rotated.

Long-period signals were recorded at WH2YK, CPSO, FN-WV, ALPA and NORSAR. HN-ME and RK-ON did not record LP signals for this event and were not included in this report. Horizontal LP channels at FN-WV and WH2YK were rotated. At CPSO, horizontal LP channels were not rotated because the LP north channel was inoperative. Validity of ALPA and NORSAR long-period vertical beams is uncertain and horizontal beams were not included because of program recovery problems. LASA long-period data were not recoverable.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 316° ± 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

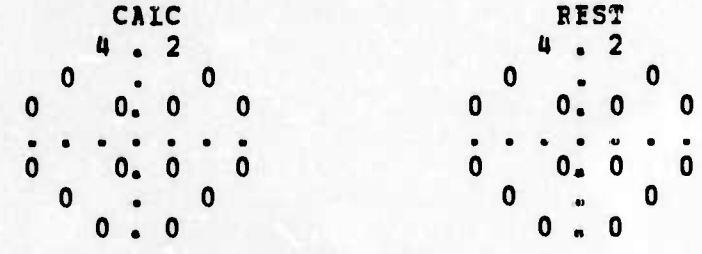
HYPOCENTER DETERMINATION

INPUT FOR EVENT 6 JUN 75
14:21:54.0 1.900S 80.100W 0KM.

STA.	ARRIVAL	RESIDUALS CALC	RESIDUALS REST	DIST. REST	AZ. REST
CPO	14 28 32.4	0.2	0.8	40.2	349.1
FN-WV*	14 28 52.7	2.9 *	3.1 *	42.4	357.0
HN-ME	14 29 53.4	0.3	-0.1	50.5	8.1
RK-CN	14 30 35.8	-0.4	-1.1	56.4	347.3
LAC	14 30 36.7	-0.3	0.0	56.7	336.2
WH2YK	14 32 56.6	0.5	0.2	78.4	334.8
NAC	14 34 05.9	-0.2	0.2	92.3	29.3

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
14:21:53.0	1.698S	76.969W	449. CALC	0.4	5	6
14:20:54.2	3.948S	76.939W	0. REST	0.6	3	6



CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.02
MAJOR 88.7KM. MINOR 57.6KM. AZ= 25 AREA= 16062 SQ.KM. REST

*FN-WV NOT USED IN HYPOCENTER DETERMINATION BECAUSE OF POOR FIT.

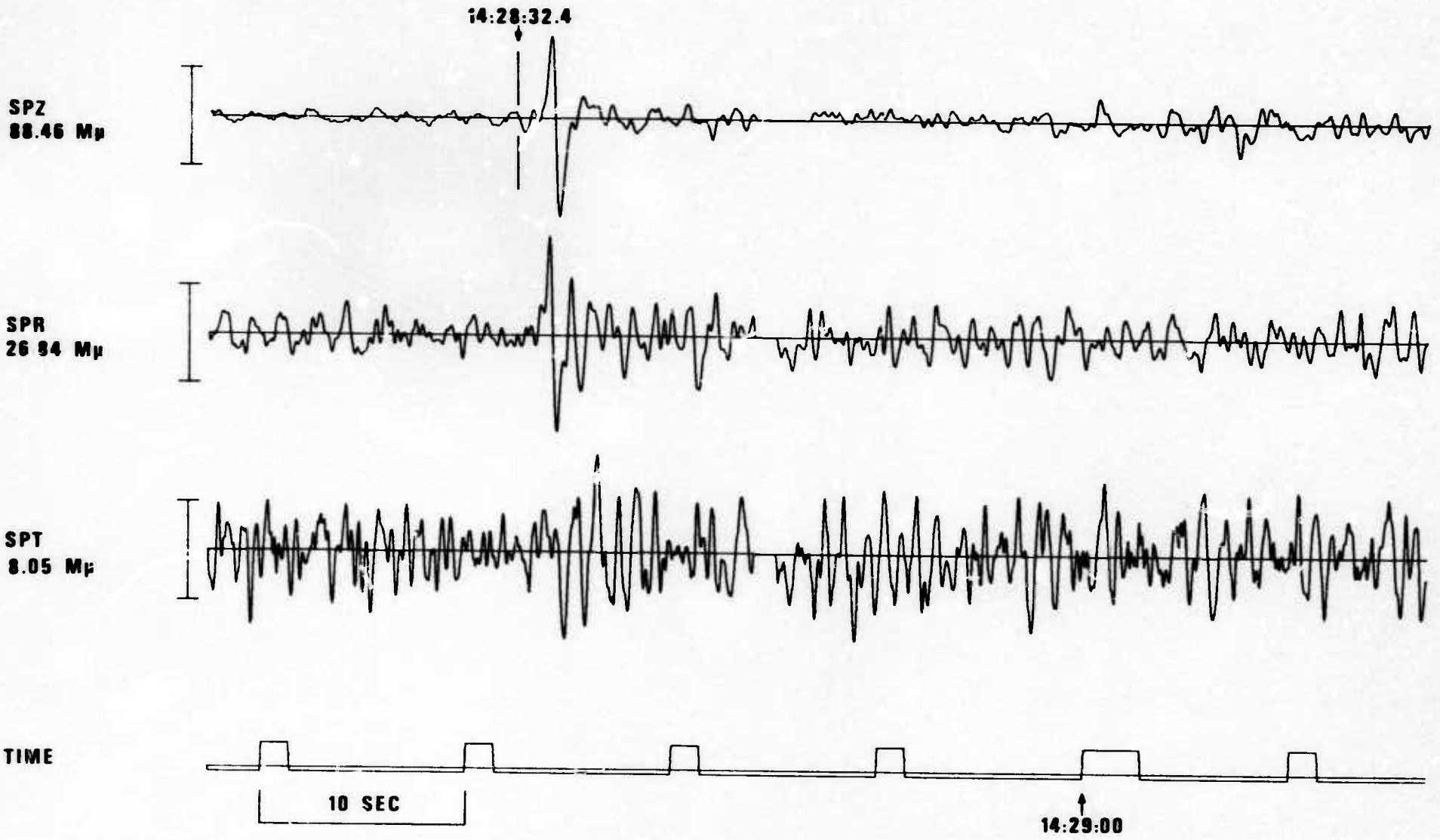
DATA SUMMARY

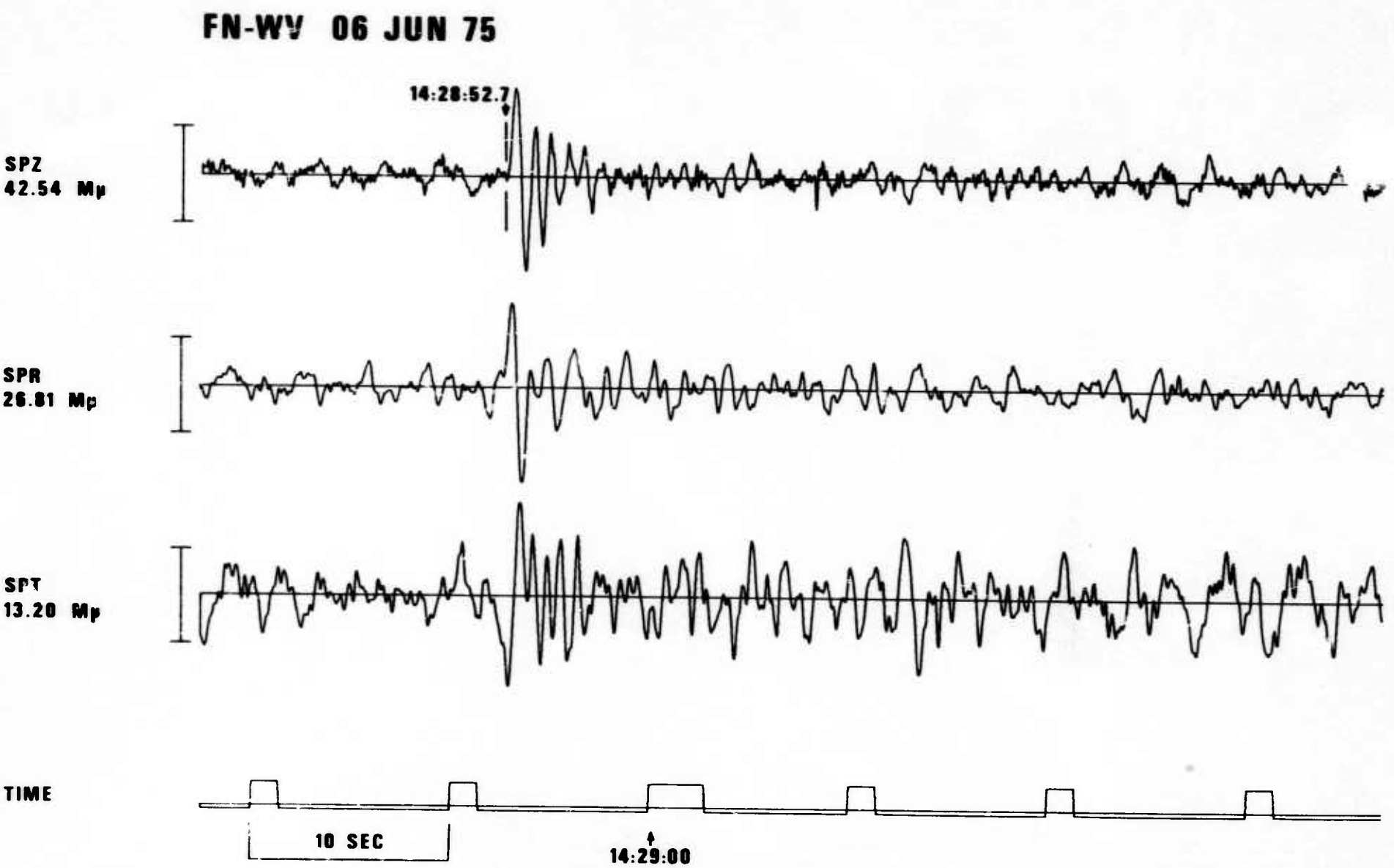
INPUT FOR EVENT 6 JUN 75
14:21:54.0 1.900S 80.100W 0KM.

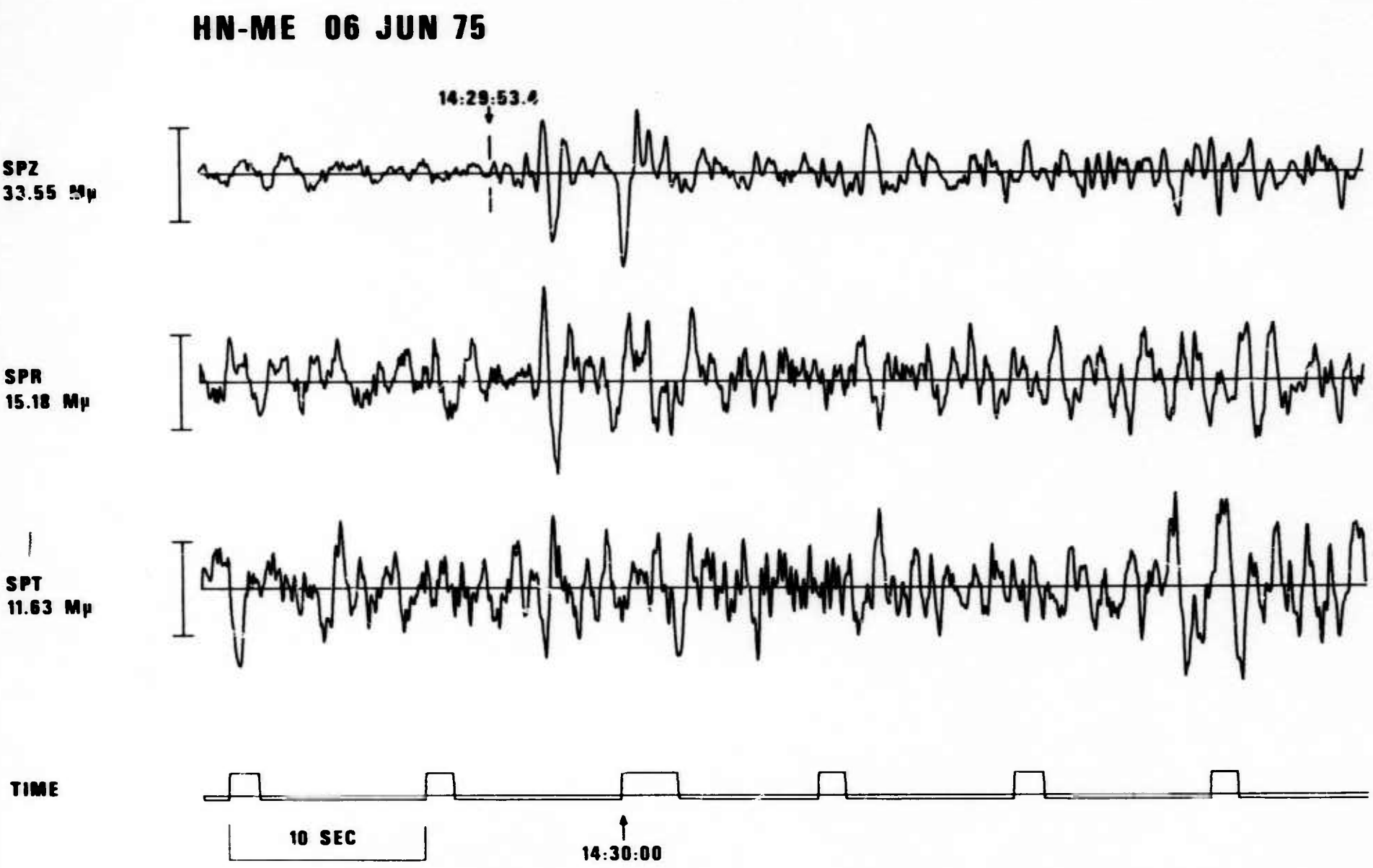
STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE MB	MS	DIR	DIST
CPC	EP	14 28 32.4	SPZ	0.9	156.	5.31			40.2
CPO	LQ	14 40 18.0	LPT	25.0	46.				
CPO	LR	14 43 14.0	LPZ	21.0	21.		4.05		40.2
FN-WV*	EP	14 28 52.7	SPZ	1.0	80.	5.10			42.4
FN-WV	LQ	14 41 25.0	LPT	24.0	33.				
FN-WV	LR	14 43 37.0	LPZ	23.0	18.		4.00		42.4
HN-ME	EP	14 29 53.4	SPZ	0.9	36.	4.96			50.5
RK-ON	EP	14 30 35.8	SPZ	0.9	77.	5.39			56.4
LAC	EP	14 30 38.7	AB	0.8	27.	4.93			56.7
WH2YK	EP	14 32 56.6	SPZ	1.1	15.	4.73			78.4
WH2YK	LR	15 07 51.0	LPZ	23.0	6.		3.79		78.4
ALPA	LR	15 15 40.0	LPZ	19.0	1.		3.05		85.6
NAO	EP	14 34 05.9	AB	1.3	33.	5.35			92.3
NAO	LR	15 08 30.0	LPZ	23.0	5.		3.78		92.3

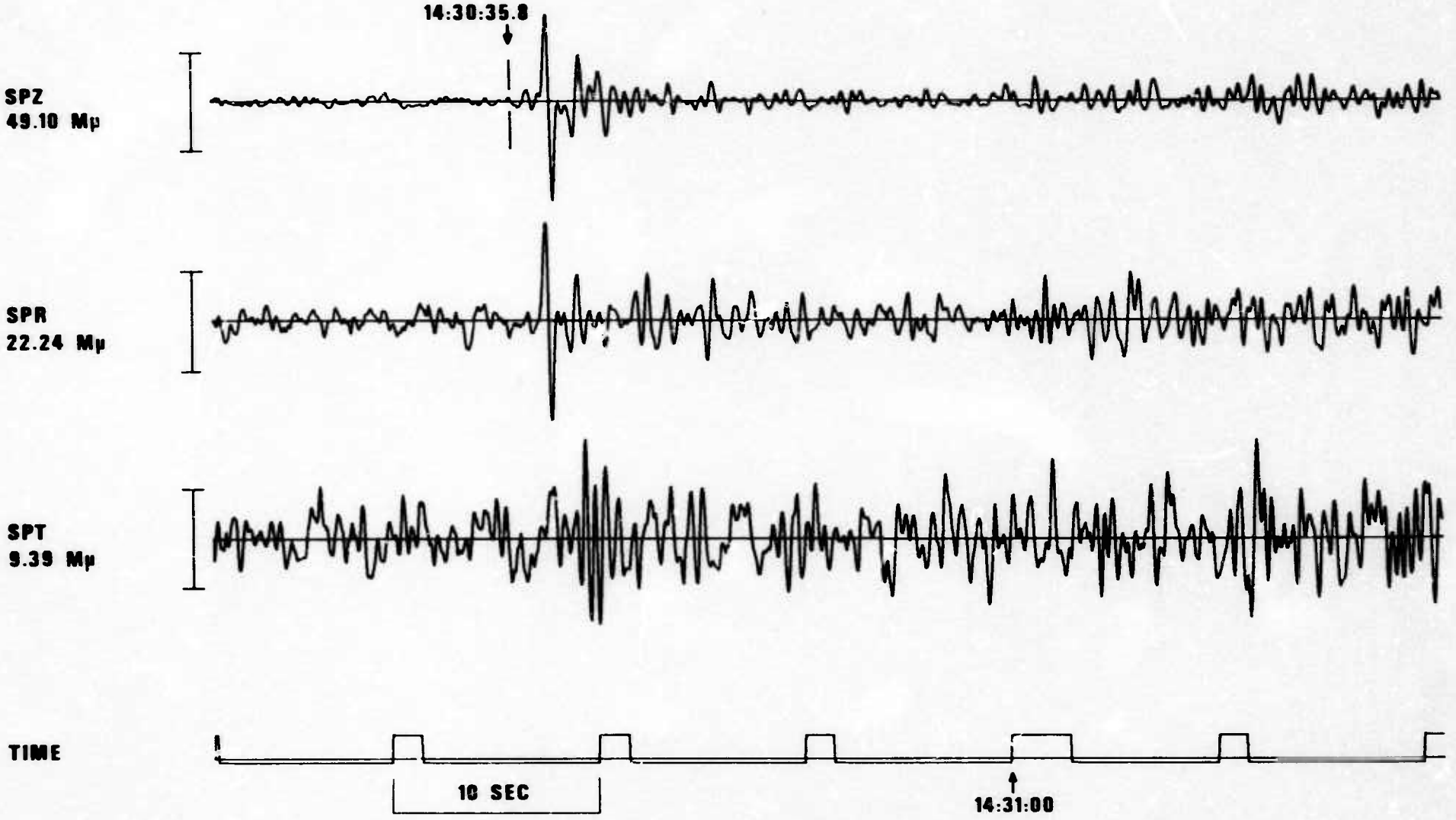
ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
14:21:53.0	1.698S	76.969W	449. CALC	4.59	0.35	6	3.72	0.4	5
14:20:54.2	3.948S	76.939W	0. REST	5.11	0.27	6	3.74	0.4	5

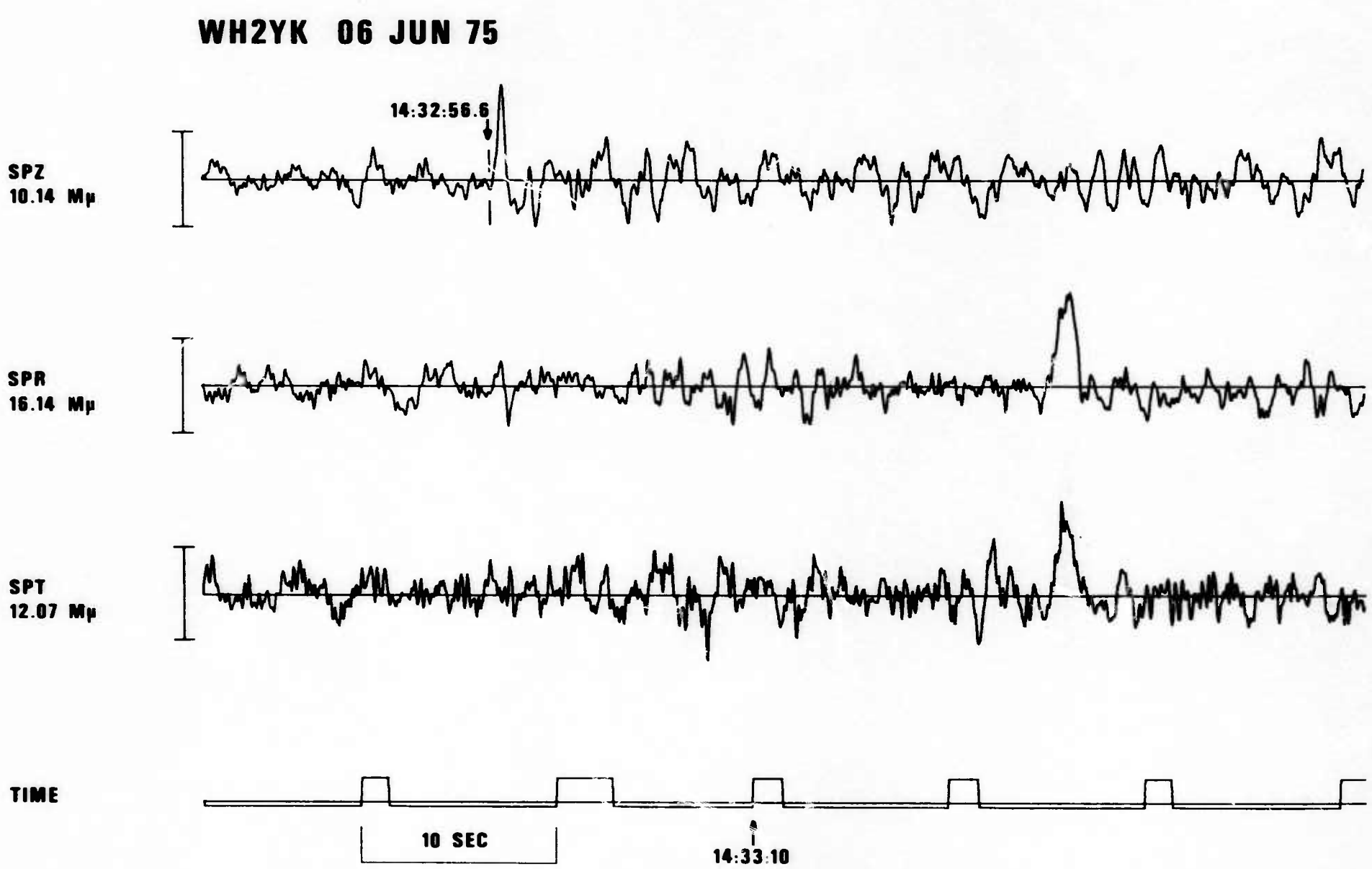
*FN-WV NOT USED IN HYPOCENTER DETERMINATION BECAUSE OF POOR FIT.


CPSO 06 JUN 75
14:28:32.4
SPZ
88.46 Mμ
SPR
26 94 Mμ
SPT
8.05 Mμ
TIME
10 SEC
14:29:00


FN-WV 06 JUN 75
14:28:52.7
SPZ
42.54 Mμ
SPR
26.81 Mμ
SPT
13.20 Mμ
TIME
10 SEC
14:29:00

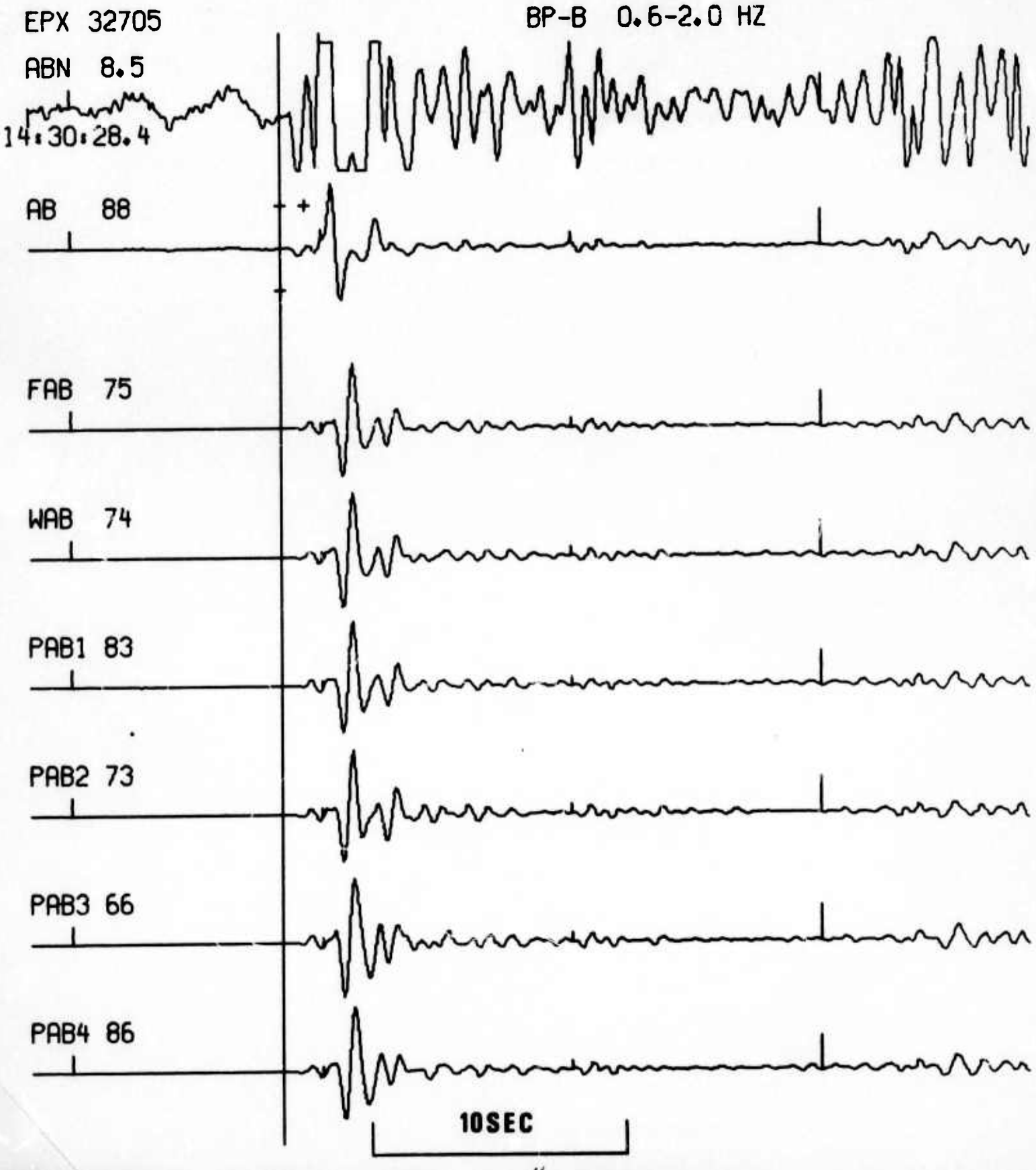

HN-ME 06 JUN 75
14:29:53.4
SPZ
33.55 Mμ
SPR
15.18 Mμ
SPT
11.63 Mμ
TIME
10 SEC
14:30:00


RK-ON 06 JUN 75
14:30:35.8
SPZ
49.10 Mμ
SPR
22.24 Mμ
SPT
9.39 Mμ
TIME
10 SEC
14:31:00


WH2YK 06 JUN 75
14:32:56.6
SPZ
10.14 Mμ
SPR
16.14 Mμ
SPT
12.07 Mμ
TIME
10 SEC
14:33:10

LASA

1 6 JUN 1975
2 14 21 22 1.3S 78.8W 33C C 5.1 107 ECUADOR
3 14 30 38.4 LAO P 27.5 0.9 15.2 53.5 145.1

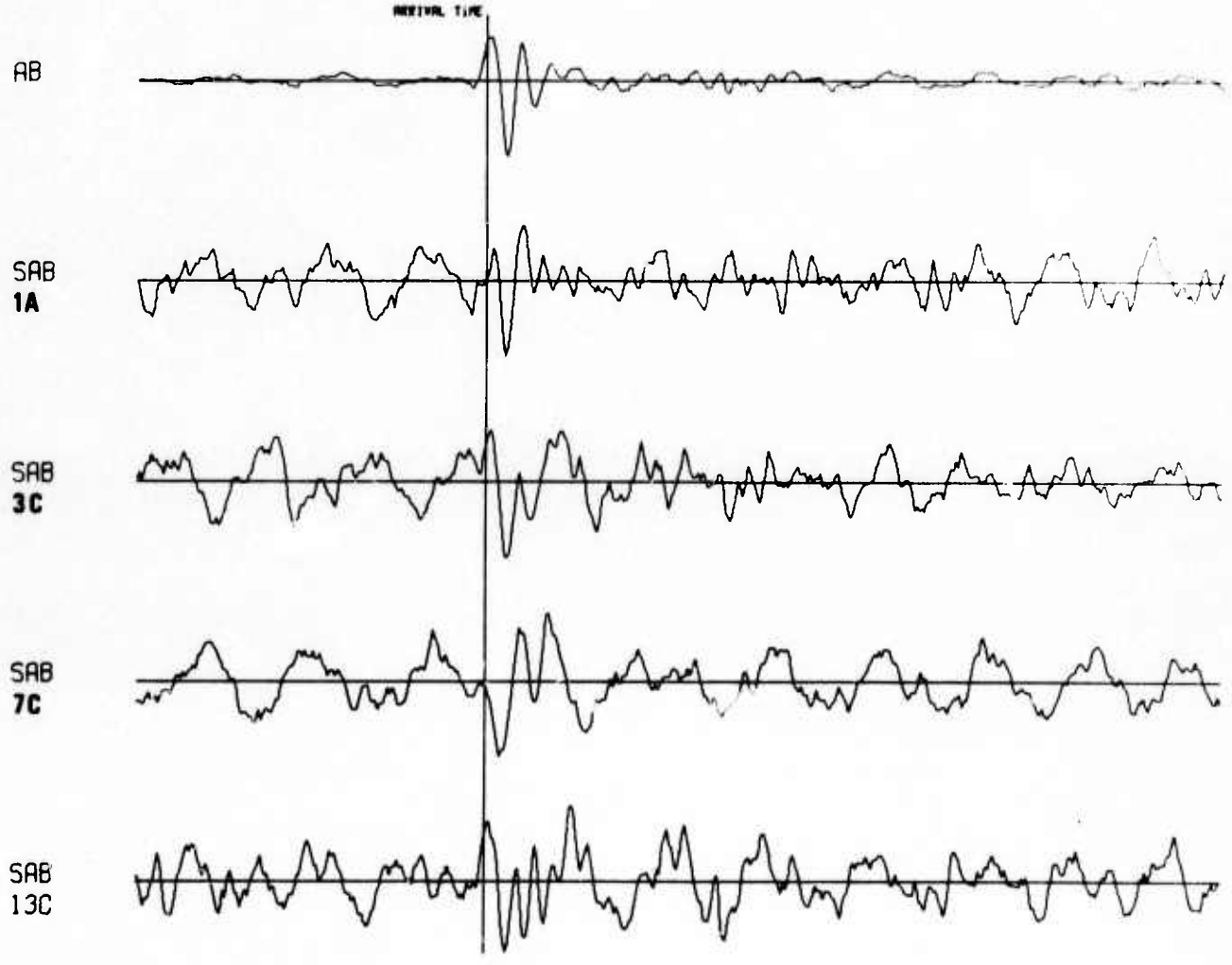


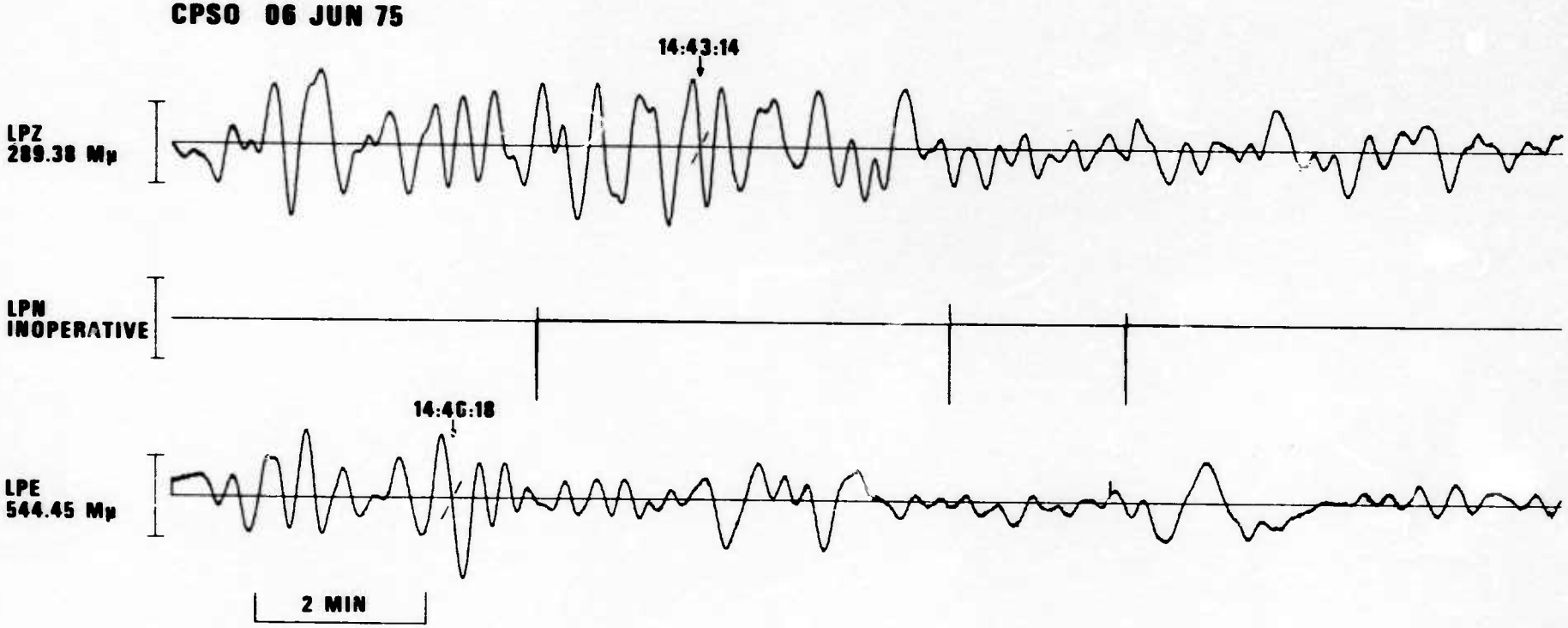
NORSAR EVENT FILE 1975 JUN 6

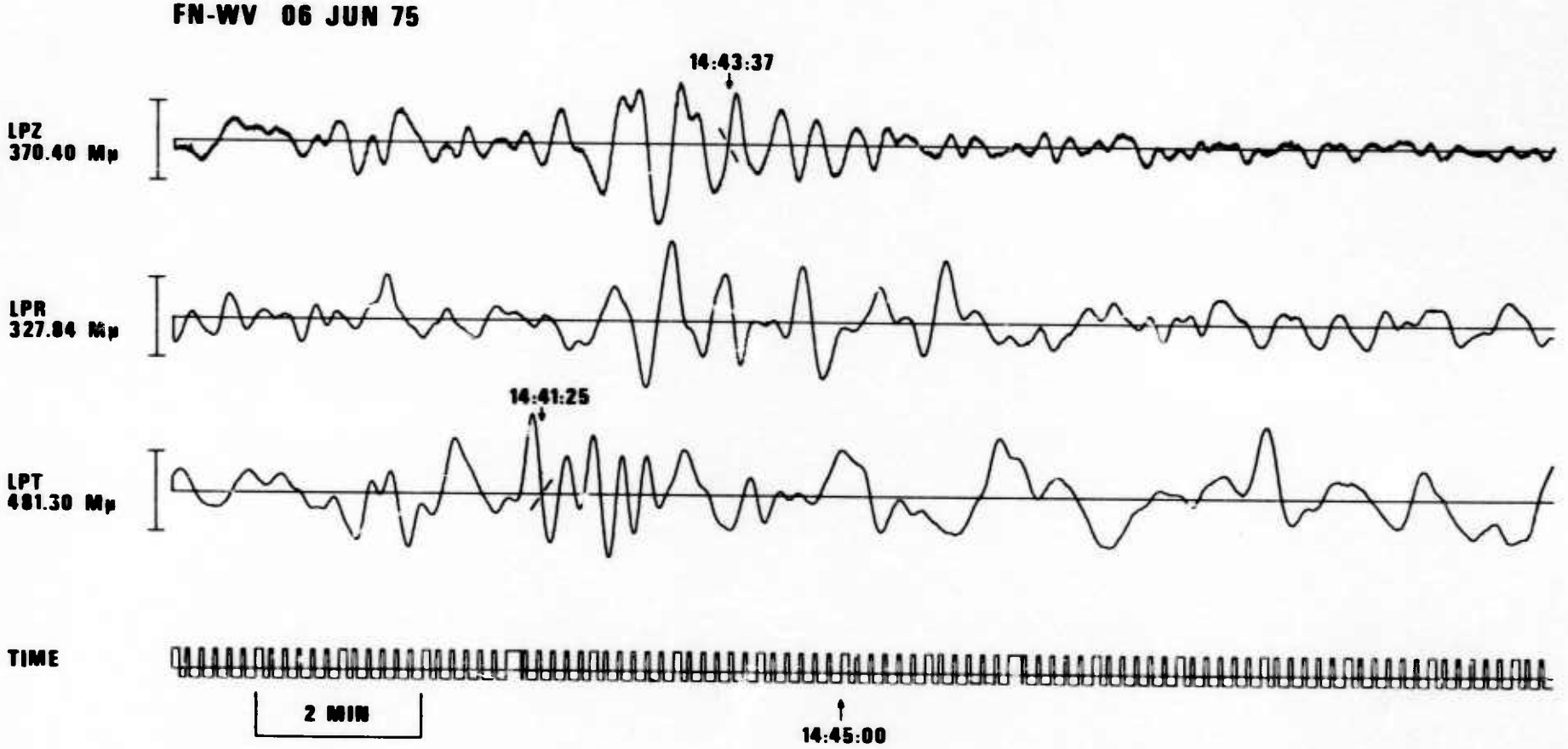
EPX NO. 10760 ARR. 14.34.6.5 2.9S 76.7W 5.0MB 33KM

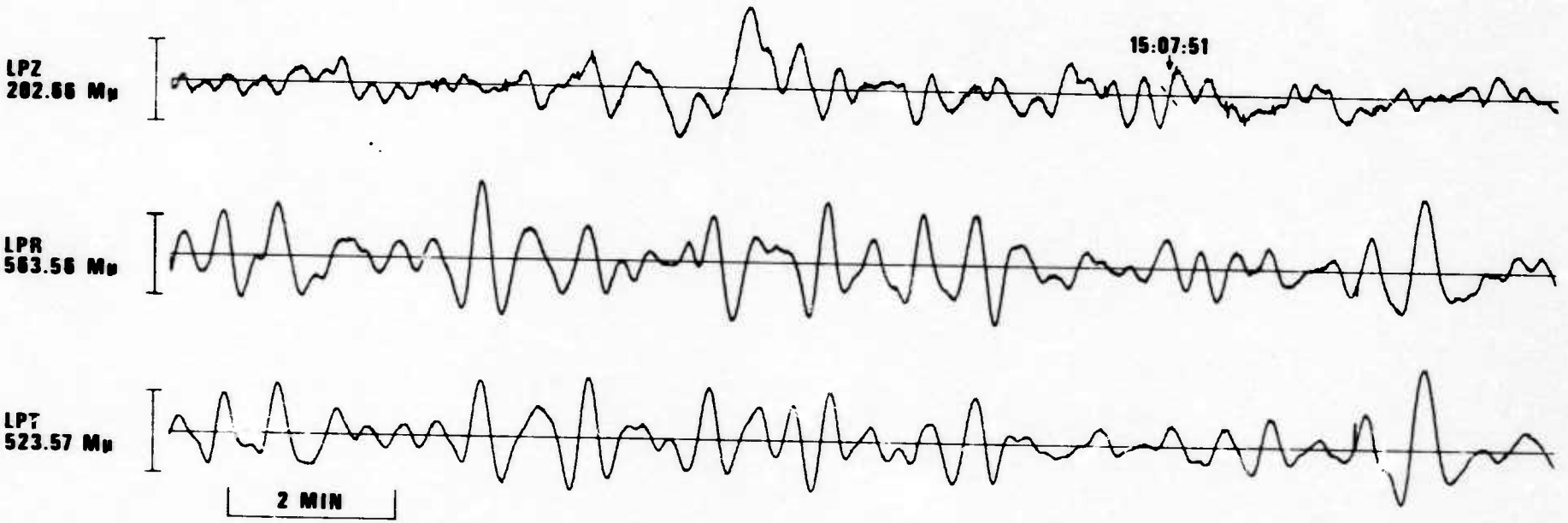
DIST = 91.3 AZI = 266.4 AMP = 9.6 PER = 1.2 UMETH 2

SCALE |——| = 5 SECONDS




CPSO 06 JUN 75
14:43:14
LPZ
289.38 Mμ
LPN
INOPERATIVE
14:46:18
LPE
544.45 Mμ
2 MIN


FN-WV 06 JUN 75
14:43:37
LPZ
370.40 Mμ
LPR
327.84 Mμ
14:41:25
LPT
481.30 Mμ
TIME
2 MIN
14:45:00


WH2YK 06 JUN 75
LPZ
202.66 Mμ
15:07:51
LPR
563.56 Mμ
LPT
523.57 Mμ
2 MIN

ARRAY LONG PERIOD VERTICAL BEAMS 06 JUN 75